



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/784,381

02/15/2001

Allan L. Scherr

EMC00-28(00163)

3942

47653

7590

04/20/2006

EXAMINER

SON, LINH L D

DAVID E. HUANG, ESQ.
BAINWOOD HUANG AND ASSOCIATES LLC
2 CONNECTOR ROAD
WESTBOROUGH, MA 01581

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/784,381

Applicant(s)

SCHERR, ALLAN L.

Examiner

Linh LD Son

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-7, 9-14, 16, 17, 19-29, 31 and 33-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 9-14, 16-17, 19-29, 31, and 33-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responding to the Amendment received on 01/23/06.
2. Claims 1, 3-7, 9-14, 16-17, 19-29, 31, and 33-40 are pending.
3. Claims 37-40 are newly added claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-7, 9-14, 16-17, and 19-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al, US Patent No. 5506961, hereinafter "Carlson" (Cited in PTO-890 dated 06/18/04) in view of Shomler, US Patent No. 6567853.

6. As per claims 1, 6-7, 12-13, 14, 17, 20, and 30:

Carlson teaches "A data storage system for accessing a set of data, comprising: a data access manager for establishing a plurality of tokens for accessing the set of data; a network connection in communication with the data access manager (Fig 1, 110); and a data storage assembly in communication with the network connection" in (Col 4 line 53

Art Unit: 2135

to Col 5 line 65, Col 8 lines 9-10, Col 8 line 7 to Col 9 line 5, and Col 12 lines 30-40), “the data storage assembly comprising (i) a set of storage locations that stores the set of data, and (ii) a control circuit configured to: receive from a host in communication with the data access manager over the network connection” in (Col 5 lines 20-64, and Col 7 lines 43-67) “(i) a device oriented, block based command to access the set of data and (ii) a first access token of the plurality of tokens that provides access to the set of data stored in the set of storage locations in the data storage system” in (Col 7 line 10 to Col 9 line 25, Col 8 lines 40-55, and Col 9 lines 1-60); “generate an authorization signal that controls access to the set of data based on the first access token and a second access token of the plurality of tokens, the second access token associated with the set of storage locations, by performing a comparison of the first access token to the second access token associated with the set of storage location, if the comparison indicates that the first access token and the second access token are identical, produce an access approval signal that provides access to the set of storage locations (Col 6 lines 44-67); and if the comparison indicates that the first access token and the second access token are not identical, produce an access failure signal that indicates a denial of access to the set of storage locations; and produce a response signal that provides a response to the device oriented, block based command over the network connection to the host based on the authorization signal” in (Col 6 lines 44-67, Col 9 lines 45-60, and Col 8 line 5 to Col 9 line 5).

However, Carlson does not teach specifically that the device oriented, block based command to access the set of data.

Art Unit: 2135

Nevertheless, Shomler discloses the "Scalable I/O system for the efficient transfer of storage device data by a Non-Server Reconnection" invention, which teaches a method of requesting data to a storage server location by sending a requesting message including an access token and a scsi token command ID (Col 4 lines 48-67, and Col 5 lines 3-30).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate Shomler's teaching with Carlson teaching to have direct access control to the storage device utilizing the scsi protocol command (Col 3 lines 48-60).

7. As per claims 3, 9-10, 23, 27, and 29:

The rejection of claim 1 is incorporated and further Carlson teaches the association, prior to receiving the first access token, the second access token with the set of storage locations in response to an initial device oriented, block based command from the host to store the set of data (Col 8 lines 15-18), and tagging each storage location with the second access token (Col 8 lines 15-18). However, Carlson does not teach the allocation of the set of storage locations in the data storage assembly to receive the set of data in response to the device oriented, block based command to store the set of data. Nevertheless, Carlson does teach the access privilege of the PWS as to read or write from a particular storage device location (Col 8 lines 1-5). Therefore, it is obvious at the time of the invention was made for one of ordinary skill that Carlson explicitly teaches the allocation of the set of storage locations in the data storage to store data (Col 9 lines 45-62).

Art Unit: 2135

8. As per claims 5, 11, 16, 19, 22, and 24:

Carlson and Shomler discloses the data storage system of claims 1, 7, 14, 17, 21, and 23, wherein the device oriented, block based command is one of a read device oriented, block based command to read data from at least one of the set of storage locations and a write request to write data to at least one of the set of storage locations (Col 8 lines 1-5, and Col 9 lines 45-62).

9. As per claims 21, 25, 26, 28, and 32:

Claim 1 rejection is incorporated. Further, Carlson teaches an input/output controller to the data storage system (Col 1 lines 15-26, Col 4 line 55 to Col 5 line 67, and Col 7 line 44 to Col 8 line 5).

10. As per claim 31:

Carlson and Shomler teaches "the data storage system of claim 30 wherein the device oriented, block based command comprises a SCSI command, the control circuit is configured to receive the SCSI command via non-channel communications using a transport protocol" in (Col 4 line 55 to Col 5 line 67).

11. As per claims 33-34, and 36-39:

Carlson and Shomler teaches "The data storage system of claims 1 and 21 wherein, when receiving, the control circuit is configured to received from the host in communication with the data access manager over the network connection the first access token of the plurality of tokens that provides access to the set of data stored within a range of disk addresses in the set of storage locations of the data storage

Art Unit: 2135

assembly, the range of disks addresses distinct from file names associated with the set of data; and when generating, generate an authorization signal that controls access to the set of data based on the first access token and a second access token of the plurality of tokens, the second access token associated with the range of disk addresses in the set of storage locations" in (Col 7 line 43 to Col 8 line 5, and Col 9 lines 45-62).

12. As per claim 35:

Claim 21's rejection basis is incorporated. However, Carlson does not specifically teach the range of disk addresses in the set of the storage locations in the data storage system. Nevertheless, Carlson does teach the information ID field, which is used to identify the information or where to locate the information. In one preferred embodiment, Carlson teaches "a table (not shown) which correlates particular information IDs to the location of the information is used; however, any means for associating a device oriented, block based command for particular information to the location of the information could be used" in (Col 7 line 44 to Col 8 line 5, and Col 9 lines 45-62). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to realize that the information ID can be interpreted as the range of disk or storage devices addresses.

13. As per claim 40:

Carlson discloses "A data storage system for accessing a set of data, comprising:

Art Unit: 2135

a data access manager for establishing a plurality of tokens for accessing the set of data; a network connection in communication with the data access manager(Fig 1, 110);

and a data storage assembly in communication with the network connection” in (Col 4 line 53 to Col 5 line 65, Col 8 lines 9-10, Col 8 line 7 to Col 9 line 5, and Col 12 lines 30-40), “the data storage assembly comprising (i) a set of storage locations having a range of disk addresses that stores the set of data, and (ii) a control circuit configured to:

receive from the host in communication with the data access manager over the network connection” in (Col 5 lines 20-64, and Col 7 lines 43-67) “(i) a device oriented, block based command to access the set of data, the device oriented, block based command comprising one or more ranges of disk addresses of the set of storage locations and (ii) a first access token of the plurality of tokens that provides access to the set of data stored in the range of disk addresses” in (Col 7 line 10 to Col 9 line 25, Col 8 lines 40-55, and Col 9 lines 1-60);

“generate an authorization signal that controls access to the set of data based on the first access token and a second access token of the plurality of tokens, the second access token associated with the set of storage location, by performing a comparison of the first access token to the second access token associated with the set of storage locations” in (Col 6 lines 44-67);

if the comparison indicates that the first access token and the second access token are identical, produce an access approval signal that provides access to the set of storage locations;

and if the comparison indicates that the first access token and the second access token are not identical, produce an access failure signal that indicates a denial of access to the set of storage locations;

and produce a response signal that provides a response to the device oriented, block based command over the network connection to the host based on the authorization signal" in (Col 6 lines 44-67, Col 9 lines 45-60, and Col 8 line 5 to Col 9 line 5).;

wherein the device oriented, block based command comprises a SCSI command, and the control circuit is configured to receive the SCSI command via non-channel communications using a transport protocol in (Col 3 lines 48-60).

However, Carlson does not teach specifically that the device oriented, block based command to access the set of data.

Nevertheless, Shomler discloses the "Scalable I/O system for the efficient transfer of storage device data by a Non-Server Reconnection" invention, which teaches a method of requesting data to a storage server location by sending a requesting message including an access token and a scsi token command ID (Col 4 lines 48-67, and Col 5 line 53 to Col 6 line 15).

Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to incorporate Shomler's teaching with Carlson teaching

Art Unit: 2135

to have direct access control to the storage device utilizing the scsi protocol command
(Col 3 lines 48-60).

Response to Arguments

14. Applicant's arguments filed 01/23/06 have been fully considered but they are not persuasive.

15. As per argument on page 23 2nd paragraph, Applicant argues that "Shomler does not teach or suggest receiving, from a host over a network connection, a device oriented, block based command to access a set of data, as claimed by the applicant", and in 3rd paragraph Applicant argues similar point in addition to "does not teach or suggest receiving, from a host over a network connection...". Examiner respectfully disagrees with the Applicant. In Col 5 line 53 to Col 6 line 16, Shomler discloses clearly a method of data transfer access from client to the server using a token to authenticate the connection and data request.

16. Therefore, the rejection basis dated 10/07/05 is maintained.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh LD Son whose telephone number is 571-272-3856. The examiner can normally be reached on 9-6 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son
Examiner
Art Unit 2135



HOSUK SONG
PRIMARY EXAMINER